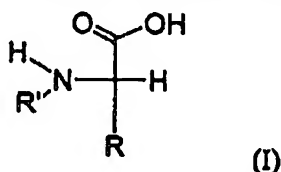


CLAIMS

1. A method for the manufacture of aluminum trihydrates by hydrolysis of aluminum alcoholates at 0 °C to 60 °C in aqueous solution with a pH value greater than 8 by addition of organic compounds having 2 to 24 carbon atoms or their salts, which each taken by itself has at least one amino group and at least one carboxyl group.

2. The method in accordance with claim 1 characterized in that the organic compounds have an amino group in the 2, 3 or 4 position, preferably in the 2 position, to the carboxyl group.

3. The method in accordance with one of the preceding claims characterized in that the organic compound is an amino acid of general formula I



with R equal to H or a hydrocarbon group with 1 to 20 carbon atoms with if necessary one or a plurality of functional groups, and R' equal to H, or a C₁ to C₅ alkyl with if necessary one or a plurality of functional groups.

4. The method in accordance with one of the preceding claims characterized in that the organic compound has furthermore at least one hydroxyl group.

5. The method in accordance with one of the claims 1 through 3, characterized in that the organic compound is L-serin, aspartic acid, glycine and/or L-leucin.

6. The method in accordance with one of the preceding claims characterized in that the organic compound is present at 0.01 to 1 wt%, preferably at 0.2 to 0.5 wt% in relation to the hydrolysis receiver.

7. The method in accordance with one of the preceding claims characterized in that the manufactured aluminum trihydrates have a nordstrandite or gibbsite structure.

8. The method in accordance with one of the preceding claims characterized in that the hydrolysis is carried out at temperatures between 20 °C and 60 °C, preferably between 30 °C and 40 °C.

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9. The method in accordance with one of the preceding claims characterized in that aluminum alcoholates are added to the hydrolysis receiver in a weight ratio of 1 to greater than 0.5, preferably 1 to 0.7 to 1 to 3.

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10. The method in accordance with one of the preceding claims characterized in that in a further step after the hydrolysis the aluminum compound undergoes a hydrothermal aging, preferably above for at least 1 h.

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11. The method according to claim 10, characterized in that the hydrothermal aging at temperatures is carried out between 30 °C and 100 °C, preferably between 40 °C and 60 °C.

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12. The method according to one of claims 10 or 11, characterized in that the hydrothermal aging is carried out in a solid material slurry with a solid material concentration from 2 to 25 wt%, preferably 3 to 5 wt%, calculated as Al_2O_3 and in relation to the total weight of the solid material slurry.

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13. The aluminum trihydrate, manufacturable according to one of the preceding claims, which has a pore volume of greater than 0.6 ml/g, preferably 0.8 to 1.5 ml/g.

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14. Use of aluminum trihydrates in accordance with claim 13 as catalyst support.

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